

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows. The claims are in the format as required by 35 C.F.R. § 1.121.

1. Canceled
2. (Previously Presented) A system for transporting data from a plurality of ingress lines to a plurality of egress lines comprising:
  - a data switching matrix having a plurality of ingress ports and a plurality of egress ports, wherein for each of the ingress ports, the data switching matrix is configured to transport data from each the ingress port to one of the plurality of egress ports;
  - a plurality of ingress edge units, each of which is coupled to one of the plurality of ingress ports of the data switching matrix, wherein each of the plurality of ingress edge units is configured to receive a data from a corresponding one or more of a plurality of ingress lines;
  - a plurality of egress edge units, each of which is coupled to one of the plurality of egress ports of the data switching matrix, wherein each of the plurality of egress edge units is configured to transmit data received from the data switching matrix to one or more of a plurality of egress lines;
  - wherein each of the plurality of ingress edge units is configured to examine data received via the corresponding ingress lines and to identify portions of the data corresponding to each of the egress edge units,
  - wherein portions of the data corresponding to each of the egress edge units is stored in a corresponding buffer, and wherein data in each buffer is transmitted to the corresponding egress edge unit via the data switching matrix in a predetermined time slot,
  - wherein the ingress edge unit comprises:
    - one or more ingress ports, each of which is configured to be coupled to an ingress data line;
    - a switch coupled to the one or more ingress ports; and
    - a plurality of buffers coupled to the switch;

wherein the switch is configured to store data received via the one or more ingress ports in the plurality of buffers,  
wherein the data stored in each of the plurality of buffers is destined for a corresponding one of a plurality of destinations; and  
wherein the ingress edge unit is configured to:  
transmit data from each of the plurality of buffers in a corresponding predetermined time slot, and  
schedule data from each of the plurality of buffers to be delivered to the corresponding one of the plurality of destinations, independent of the predetermined time slot.

3. (Original) The system of claim 2 wherein the ingress edge unit further comprises a multiplexer coupled to the plurality of buffers and configured to multiplex data contained in the plurality of buffers into a single data stream.
4. (Original) The system of claim 3 wherein the multiplexer is configured to multiplex clock data into the single data stream.
5. (Original) The system of claim 4 wherein the clock data is embodied in an optical signal comprising a wavelength which is distinct from a plurality of wavelengths used for optical data signals.
6. (Original) The system of claim 2 wherein the ingress edge unit further comprises a plurality of network interface cards coupled to the ingress lines, wherein each network interface card is configured to receive a data signal from the corresponding ingress line in a corresponding format.

Claims 7-31. (Canceled)

32. (Previously Presented) The system of claim 2, wherein the corresponding one of a plurality of destinations for each of the plurality of buffers is assigned on an as-needed basis.

33. (Previously Presented) The system of claim 2, wherein the corresponding one of a plurality of destinations for each of the plurality of buffers is a corresponding egress edge unit.